

REMARKS

Claims 1-5, 7-11 and 13-19 are rejected under 35 USC §103(a), as allegedly being unpatentable over Havemann et al. (US 6,130,156, hereinafter "Havemann").

Applicants respectfully traverse the §103(a) rejections with the following arguments.

35 U.S.C. § 103(a)

The Examiner asserts that layer 11 of Havemann corresponds to the first layer of bond pad material of the present invention, while layer 13 of Havemann corresponds to the second layer of bond pad material of the present invention. The Examiner also asserts that, although Havemann does not disclose forming a wiring line/interconnection structure over the second layer of bond pad material, multi-layer wiring could be made by iteratively executing the process of Havemann using insulating film 25 and lines 11/13 or 28/29/31 and plug 33.

Applicants respectfully contend that claims 1, 7 and 13 are not unpatentable over Havemann, because Havemann does not teach or suggest each and every feature of claims 1, 7 and 13.

For example, Havemann does not teach forming a first non-conductive layer in direct mechanical contact with a surface of a substrate. In contrast, a conductive layer (9) is in direct mechanical contact with the surface of the substrate (5) in Havemann, not a non-conductive layer, as required by the present invention.

In addition, Havemann does not teach depositing a second non-conductive layer over the second layer of bond pad material, wherein the second non-conductive layer is in direct mechanical contact with the bond pad region of the second layer of the bond pad material, as recited in claims 1, 7 and 13 of the present application. In contrast, Havemann teaches the formation of a conductive aluminum layer (15) in direct mechanical contact with the second layer (13), not a non-conductive layer in direct mechanical contact with the bond pad region of the second layer of the bond pad material, as required by the present invention. Even if the insulating film 25 were deposited over the structure illustrated in Fig. 1c of Havemann, as

asserted by the Examiner, this would not constitute a non-conductive layer in direct mechanical contact with the bond pad region of the second layer (13). Claims 1, 7 and 13 define "bond pad region" as the first and second layers on the surface of the first non-conductive layer extending beyond the via. The equivalent region in Havemann is beneath layer 15, therefore, could not be in direct mechanical contact with any subsequently deposited non-conductive layer.

Therefore, Applicants respectfully maintain that claims 1, 7 and 13 are not unpatentable over Havemann and are in condition for allowance. Furthermore, since claims 2-5 depend from claim 1, claims 8-11 depend from claim 7, and claims 14-19 depend from claim 13, Applicant contends that claims 2-5, 8-11 and 14-19 are likewise in condition for allowance.

Conclusion

Based on the preceding arguments, Applicant respectfully believes that claims 1-5, 7-11 and 13-19 and the entire application meet the acceptance criteria for allowance and therefore request favorable action. However, should the Examiner believe anything further is necessary in order to place the application in better condition for allowance, or if the Examiner believes that a telephone interview would be advantageous to resolve the issues presented, the Examiner is invited to contact the Applicant's undersigned representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0456.

Respectfully submitted,

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